

### **REMARKS**

Claims 17-34 are pending. Claims 17, 23, 29 and 31 have been amended herein. As set forth more fully below, reconsideration and withdrawal of the Examiner's rejections of the claims are respectfully requested.

#### **Claim Rejection under 35 USC §103**

The Examiner has rejected claims 17, 20-31 and 34 under 35 U.S.C §103(a), as being unpatentable over Potter et al. (WO 97/14309) in view of Sarwar (*Plant and Soil*, 201:103-112. 1998). The Examiner has also rejected claims 18, 19, 32 and 33 under 35 USC §103(a), as being unpatentable over Potter et al. (WO 97/14309) in view of Franke (U.S. Patent No. 5,525,746).

As implicitly acknowledged by the Examiner, (see, *inter alia*, page 5 and page 7 of the Office Action dated September 9, 2008) claim 17 is novel as Potter et al. (WO97/14309) does not disclose all the limitations contained therein. The Office Action also states that claim 17 is obvious over the combination of Potter et al. and Franke (US5525746). We respectfully traverse these allegations in view of the following arguments.

The instant application and the references cited by the Examiner are of different technical fields. With regard to obviousness, "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the evidence must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned" (MPEP §2141.01(a) I – *In re Oetiker*, *In re Deminski*, *In re Clay*).

Franke teaches how to obtain "desired compounds from carbonaceous materials" (see column 1, lines 9-11), whereas, the technical field of the present invention is pesticide compositions. Thus, it is clear that Applicant's invention is completely different from that of Franke, as pesticide compositions have nothing in common with the extraction of specific compounds from carbonaceous material.

Applicants submit that Franke is not pertinent to the particular problem with which the inventors of the instant application were involved. The inventors faced the problem of finding a new method of improving soil, whereas the aim of Franke was to extract compounds from carbonaceous materials. As a consequence, Franke should not be considered as analogous prior

art and, thus, should not be taken into account for assessing obviousness (“[t]o rely on a reference under 35 U.S.C. 103, it must be analogous prior art”; MPEP §2141.01(a) I).

Applicants also submit that Potter et al. differs from amended claim 17, initially because the seed flour is de-oiled at a relatively low temperature, and also because the seeds of one of *Brassica carinata* A. B., and *Capparaceae* and *Barbarea verna* are used. Franke, however, teaches carbonaceous materials in general, and specifically describes the use of rice and, in particular, rice bran (see, for example: column 4, lines 46 and 47; column 5, lines 29-31 and lines 54-56). Rice bran is very dissimilar from the seeds of the currently claimed methods. In other words Franke teaches away from the currently claimed methods of the present invention. Moreover, according to the MPEP (§ 2144.08(4)c), “any teaching or suggestion in the reference of a preferred species or subgenus that is significantly different” should be considered and “[s]uch teaching may weigh against selecting the claimed species or subgenus and thus against a determination of obviousness.”

Applicants also submit that Franke and Potter et al. do not disclose all the limitations of claim 17, as amended as neither Franke nor Potter et al. disclose the use of one of *Brassica carinata* A. B., seeds of *Capparaceae* and *Barbarea verna*.

A *prima facie* case of obviousness may also be rebutted by a showing that the results of the claimed invention were unexpected (see, for example, MPEP §2141.01 V and §2144.09 VII). Applicants submit herewith the Declaration of Luca Lazzeri (“Lazzeri Declaration”) (Applicants are also submitting an identical but unsigned copy of the Lazzeri Declaration in which the cited graphs are in legible form for the Examiner’s review), which provides data from tests carried out to demonstrate that the release of isothiocyanates (the compounds responsible for improving the soil) from the claimed seed flour is surprisingly higher than expected.

Specifically, the de-oiled seed flour of the invention loses about 30% more weight compared to the original (not de-oiled) seed flour, as shown in Fig. 3 of the Lazzeri Declaration. In other words, the extracted oil is about 30% lower in weight than the original, not de-oiled flour. On the other hand, the de-oiled seed flour unexpectedly shows an activity that is more than three times the activity of the original (not de-oiled) seed flour. If the increase of activity had been due only to the increased concentration of isothiocyanates, as shown in Fig. 2 of the Lazzeri Declaration, the activity of the de-oiled seed flour would have been “only” about 1.3

times the activity of the original (not de-oiled) seed flour. It follows that the increase of activity was unpredictable, surprising and substantially unexpected. These data show that the methods of the instant application are unexpected and would not be derived by one of skill in the art by reference to the prior art and therefore, Applicants submit that claim 17 is non-obvious. The same arguments in support of claim 17 can be applied, *mutatis mutandis*, to claim 23 and 30, which, Applicants therefore submit are clearly patentable.

Applicants believe all claims are in condition for allowance and request favorable consideration and early allowance of the same. If the Examiner has any questions regarding this Amendment and Response, the Examiner is invited to contact the undersigned.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: /Robert D. Traver/  
Robert D. Traver  
Registration No. 47,999  
1560 Broadway, Suite 1200  
Denver, Colorado 80202-5141  
(303) 863-9700

Date: March 4, 2009